

List of All Chemicals

P Catharanthus roseus (Apocynaceae)

Common name(s)

Madagascar Periwinkle; Rosy Periwinkle

How used

Medicinal

*Unless otherwise noted all references are to Duke, James A. 1992. Handbook of phytochemical constituents of GRAS herbs and other economic plants. Boca Raton, FL. CRC Press.

Chemical	Plant Part	Low PPM	High PPM	StdDev	*Reference
16-EPI-19-S-VINDOLININE-N-OXIDE	Plant	--	--		Rizk, A.F.M., The Phytochemistry of the Flora of Qatar, Scientific and Applied Research Centre, University of Qatar, Kingprint, Richmond, UK, 1986.
ADENOSINE	Leaf	--	--		CRC Handbook of Medicinal Herbs and/or CRC Handbook of Proximate Analyses

Activities (28)

Analgesic					
Antiaggregant					
Antiarrhythmic	Merck 11th Edition				
Antidiuretic	LAWSON in Koch, H. P. and Lawson, L. D., eds. 1996. Garlic- The Science and therapeutic application of Allium sativum L. and related species. Williams & Wilkins, Baltimore. 329 pp.				
Antiendotoxic 500 mg/kg ipr mus	Borchard, R. E., Barnes, C. D., and Eltherton, L. G. 1991. Drug Dosage in Laboratory Animals: A Handbook. (3rd Ed.) The Telford Press, Inc., P. O. Box 287, Caldwell NJ 07006.				
Antihypertensive	LAWSON in Koch, H. P. and Lawson, L. D., eds. 1996. Garlic- The Science and therapeutic application of Allium sativum L. and related species. Williams & Wilkins, Baltimore. 329 pp.				
Antiinsomniac					
Antilipolytic					
Antispasmodic					
Antitachycardic 50-250 ug/kg/ivn	Martindale's 29th				
Anxiolytic					
Arteriodilator					
Glucagonogenic	LAWSON in Koch, H. P. and Lawson, L. D., eds. 1996. Garlic- The Science and therapeutic application of Allium sativum L. and related species. Williams & Wilkins, Baltimore. 329 pp.				
Hypocholesterolemic	LAWSON in Koch, H. P. and Lawson, L. D., eds. 1996. Garlic- The Science and therapeutic application of Allium sativum L. and related species. Williams & Wilkins, Baltimore. 329 pp.				
Hypoglycemic					
Hypotensive	LAWSON in Koch, H. P. and Lawson, L. D., eds. 1996. Garlic- The Science and therapeutic application of Allium sativum L. and related species. Williams & Wilkins, Baltimore. 329 pp.				
Immunomodulator					
Insulinic					
Laxative					
Lipolytic	LAWSON in Koch, H. P. and Lawson, L. D., eds. 1996. Garlic- The Science and therapeutic application of Allium sativum L. and related species. Williams & Wilkins, Baltimore. 329 pp.				
Myorelaxant	Leung, A. Y. and Foster, S. 1995. Encyclopedia of Common Natural Ingredients 2nd Ed. John Wiley & Sons, New York. 649 pp.				
PAF-Inhibitor IC50=90 nM					
PAF-Inhibitor 0.024 ug/ml					
Pyrogenic 0.09 mg/kg ivn hmn	Conradson, T. B. G., Dixon, C. M. S., Clarke, B., Barnes, P. J. 1987. Cardiovascular Effects of Infused Adenosine in Man: Potentiation by Dipyridamole. Acta Physiol Scand, 129(3): 387-391.				
Respirastimulant	Martindale's 29th				
Secretomotor					
Sedative	Leung, A. Y. and Foster, S. 1995. Encyclopedia of Common Natural Ingredients 2nd Ed. John Wiley & Sons, New York. 649 pp.				
Vasodilator					

AJMALICINE	Plant	--	--	CRC Handbook of Medicinal Herbs and/or CRC Handbook of Proximate Analyses
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Activities (11)

Adrenolytic	Hansel, R., Keller, K., Rimpler, H., and Schneider, G. eds. 1992. Hager's Handbuch der Pharmazeutischen Praxis, Drogen (A-D), 1209 pp., 1993 (E-O), 970 pp., 1994 (P-Z), 1196 pp. Springer-Verlag, Berlin.
Antiadrenergic	ANON. 1948-1976. The Wealth of India raw materials. Publications and Information Directorate, CSIR, New Delhi. 11 volumes.
Antiaggregant	
Antidiuretic	Neuwinger, H. D. 1996. African Ethnobotany - Poisons and Drugs. Chapman & Hall, New York. 941 pp.
Antihypertensive	Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp.
CNS-Depressant	
Cerebrocirculant	Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp.
Circulotonic	Neuwinger, H. D. 1996. African Ethnobotany - Poisons and Drugs. Chapman & Hall, New York. 941 pp.

Sympatholytic	pp., 1994 (P-Z), 1196 pp. Springer-Verlag, Berlin.
	Hansel, R., Keller, K., Rimpler, H., and Schneider, G. eds. 1992. <i>Hager's Handbuch der Pharmazeutischen Praxis, Drogen (A-D)</i> , 1209 pp., 1993 (E-O), 970 pp., 1994 (P-Z), 1196 pp. Springer-Verlag, Berlin.
Tranquilizer	Jeffery B. Harborne and H. Baxter, eds. 1983. <i>Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants</i> . Taylor & Frost, London. 791 pp.
AKUAMMICE	Plant -- -- *
Activities (2)	
Antiacetylcholinesterase	
IC50=221 uM	
Gonadotrophic	Jeffery B. Harborne and H. Baxter, eds. 1983. <i>Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants</i> . Taylor & Frost, London. 791 pp.
AKUAMMINE	Plant -- -- CRC Handbook of Medicinal Herbs and/or CRC Handbook of Proximate Analyses
Activities (6)	
Anesthetic ca=cocaine	Jeffery B. Harborne and H. Baxter, eds. 1983. <i>Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants</i> . Taylor & Frost, London. 791 pp.
Antimalarial (1/500th chloroquine) 1 mg/kg	Neuwinger, H. D. 1996. <i>African Ethnobotany - Poisons and Drugs</i> . Chapman & Hall, New York. 941 pp.
Antiperistaltic 1 mg/kg	Neuwinger, H. D. 1996. <i>African Ethnobotany - Poisons and Drugs</i> . Chapman & Hall, New York. 941 pp.
Hypertensive	Jeffery B. Harborne and H. Baxter, eds. 1983. <i>Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants</i> . Taylor & Frost, London. 791 pp.
Hypotensive 1-15 mg/kg ivn dog	Neuwinger, H. D. 1996. <i>African Ethnobotany - Poisons and Drugs</i> . Chapman & Hall, New York. 941 pp.
Sympathomimetic	
ALSTONINE	Root -- -- Rizk, A.F.M., <i>The Phytochemistry of the Flora of Qatar, Scientific and Applied Research Centre, University of Qatar, Kingprint, Richmond, UK</i> , 1986.
Activities (5)	
Antiamebic	Medicinal and Poisonous Plants of the Tropics. Leeuwenberg, A.J.M., ed. Pudoc, Wageningen. 1987.
Antibacterial	
Antineoplastic	Jeffery B. Harborne and H. Baxter, eds. 1983. <i>Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants</i> . Taylor & Frost, London. 791 pp.
Fungicide	Recio, M. C., Rios, J. L., and Villar, A. A review of some antimicrobial compounds isolated from medicinal plants reported in the literature 1978-1988, <i>Phytotherapy Research</i> , 3(4), 1989, 117-125.
Pesticide	
AMMOCALINE	Plant -- -- CRC Handbook of Medicinal Herbs and/or CRC Handbook of Proximate Analyses
BANNUCINE	Plant -- -- Rizk, A.F.M., <i>The Phytochemistry of the Flora of Qatar, Scientific and Applied Research Centre, University of Qatar, Kingprint, Richmond, UK</i> , 1986.
BETA-SITOSTEROL	Plant -- -- Rizk, A.F.M., <i>The Phytochemistry of the Flora of Qatar, Scientific and Applied Research Centre, University of Qatar, Kingprint, Richmond, UK</i> , 1986.
Activities (47)	
Androgenic	
Angiogenic	
Anorexic	Martindale's 28th
Antiadrenomic	Merck 11th Edition
Antiandrogenic	Malini, T. and Vanithakumari, G. 1989. Rat Toxicity Studies With B-Sitosterol. <i>Journal of Ethnopharmacology</i> , 28: 221-234, 1990.
Antibacterial	Recently became <i>Internat. J. Crude Drug Res.</i> 28(1,2,3,4):1990, page 155.
Anticancer (Breast)	Madhavi, D. L., Bomser, J., Smith, M., Singletary, K. 1998. Isolation of Bioactive Constituents from <i>Vaccinium myrtillus</i> (Bilberry) Fruits and Cell Cultures. <i>Plant Sci.</i> , 131(1): 95-103.
Anticancer (Cervix)	
Anticancer (Lung)	
Antiedemic IC54=320 mg/kg orl	
Antiestrogenic	Malini, T. and Vanithakumari, G. 1989. Rat Toxicity Studies With B-Sitosterol. <i>Journal of Ethnopharmacology</i> , 28: 221-234, 1990.
Antifeedant	Jacobson, M., <i>Glossary of Plant-Derived Insect Deterrents</i> , CRC Press, Inc., Boca Raton, FL, 213 p, 1990.
Antifertility	Malini, T. and Vanithakumari, G. 1989. Rat Toxicity Studies With B-Sitosterol. <i>Journal of Ethnopharmacology</i> , 28: 221-234, 1990.
Antigonadotropic	Malini, T. and Vanithakumari, G. 1989. Rat Toxicity Studies With B-Sitosterol. <i>Journal of Ethnopharmacology</i> , 28: 221-234, 1990.
Antihyperlipoproteinemic	Jeffery B. Harborne and H. Baxter, eds. 1983. <i>Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants</i> . Taylor & Frost, London. 791 pp.
Antiinflammatory	
Antileukemic	
Antilymphomeric	
Antimutagenic 250 ug/ml	
Antiphidic 2.3 mg mus	Economic & Medicinal Plant Research, 5: 363.
Antioxidant IC44=10 uM	
Antiprogestational	Malini, T. and Vanithakumari, G. 1989. Rat Toxicity Studies With B-Sitosterol. <i>Journal of Ethnopharmacology</i> , 28: 221-234, 1990.
Antiprostaglandin 30 mg/day/12 wks	
Antiprostatadenomic	Merck 11th Edition

Antipyretic	Neuwinger, H. D. 1996. African Ethnobotany - Poisons and Drugs. Chapman & Hall, New York. 941 pp.
Antitumor (Breast)	Madhavi, D. L., Bomser, J., Smith, M., Singletary, K. 1998. Isolation of Bioactive Constituents from <i>Vaccinium myrtillus</i> (Bilberry) Fruits and Cell Cultures. <i>Plant Sci.</i> , 131(1): 95-103.
Antitumor (Cervix)	
Antitumor (Lung)	
Antiviral	Abid Ali Khan, M.M., Jain, D.C., Bhakuni, R.S., Zaim, M., and Thakur, R.S. 1991. Occurrence of some antiviral sterols in <i>Artemisia annua</i> . <i>Plant Science</i> , 75: 161-165, 1991.
Apoptotic	
Artemicide LC50=110 ppm	Jung, J.H., Pummangura, S., Chaichantipyuth, C., Patarapanich, C., and McLaughlin, J.L. 1989. Bioactive Constituents of <i>Melodorum fruticosum</i> . <i>Phytochemistry</i> , 29(5): 1667-1670, 1990.
Cancer-Preventive	Stitt, P. A. Why George Should Eat Broccoli. Dougherty Co, Milwaukee, WI, 1990, 399 pp.
Candidicide	Recently became Internat. J. Crude Drug Res. 28(1,2,3,4):1990, page 155.
Caspase-8-Inducer	
Estrogenic	
Febrifuge	Neuwinger, H. D. 1996. African Ethnobotany - Poisons and Drugs. Chapman & Hall, New York. 941 pp.
Gonadotropic	Malini, T. and Vanithakumari, G. 1989. Rat Toxicity Studies With B-Sitosterol. <i>Journal of Ethnopharmacology</i> , 28: 221-234, 1990.
Hepatoprotective	
Hypocholesterolemic 2-6 g/man/day/orl	Martindale's 30th
Hypocholesterolemic 9-3,330 mg/man/day/orl	Martindale's 28th
Hypoglycemic	Ivorra, M.D., Paya, M., and Villar, A. 1989. A Review of Natural Products and Plants as Potential Antidiabetic Drugs. <i>Journal of Ethnopharmacology</i> , 27: 243-275, 1989.
Hypolipidemic 2-6 g/day	
Pesticide	
Spermicide	Malini, T. and Vanithakumari, G. 1989. Rat Toxicity Studies With B-Sitosterol. <i>Journal of Ethnopharmacology</i> , 28: 221-234, 1990.
Ubiquiot	Jeffery B. Harborne and H. Baxter, eds. 1983. <i>Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants</i> . Taylor & Frost, London. 791 pp.
Ulcerogenic 500 mg/kg ipr rat	
CAROSIDINE	Plant -- -- CRC Handbook of Medicinal Herbs and/or CRC Handbook of Proximate Analyses
CAROSINE	Plant -- -- CRC Handbook of Medicinal Herbs and/or CRC Handbook of Proximate Analyses
Activities (3)	
Antipolio	
Antiviral	
Pesticide	
CAROTENE	Leaf -- -- CRC Handbook of Medicinal Herbs and/or CRC Handbook of Proximate Analyses
CATHARANTHINE	Plant -- -- *
Activities (2)	
Diuretic	
Hypoglycemic	
CATHARICINE	Plant -- -- CRC Handbook of Medicinal Herbs and/or CRC Handbook of Proximate Analyses
CATHARINE	Plant -- -- *
CATHAROSINE	Plant -- -- CRC Handbook of Medicinal Herbs and/or CRC Handbook of Proximate Analyses
CAVINCIDINE	Plant -- -- CRC Handbook of Medicinal Herbs and/or CRC Handbook of Proximate Analyses
CAVINCINE	Root -- -- CRC Handbook of Medicinal Herbs and/or CRC Handbook of Proximate Analyses
CAVINCINE	Plant -- -- Rizk, A.F.M., The Phytochemistry of the Flora of Qatar, Scientific and Applied Research Centre, University of Qatar, Kingprint, Richmond, UK, 1986.
CHOLINE	Plant -- -- Rizk, A.F.M., The Phytochemistry of the Flora of Qatar, Scientific and Applied Research Centre, University of Qatar, Kingprint, Richmond, UK, 1986.
Activities (20)	
Antialzheimeran 5-16 g/man/day	
Antichoreic	Davies, S., and Stewart, A. 1990. <i>Nutritional Medicine</i> . Avon Books, New York. 509pp.
Anticirrhotic 6,000 mg/man/day	
Anticystinuric	
Antidementia	
Antidiabetic	
Antidyskinetic 150-200 mg/kg/man/day	Martindale's 28th
Antihomocysteine	
Antimanic 15-30 g/man/day/orl	Pizzorno, J.E. and Murray, M.T. 1985. <i>A Textbook of Natural Medicine</i> . John Bastyr College Publications, Seattle, Washington (Looseleaf).

Antistearotic				
Cardio depressant				
Cerebrotonic				
Cholinergic				Newall, C. A., Anderson, L. A. and Phillipson, J. D. 1996. <i>Herbal Medicine - A Guide for Health-care Professionals</i> . The Pharmaceutical Press, London. 296pp.
Hepatoprotective				
Hypotensive				
Ileorelaxant				
Lipotropic				
Memorigenic				
Parasympathomimetic (1/1,000th acetylcholine)				Neuwinger, H. D. 1996. <i>African Ethnobotany - Poisons and Drugs</i> . Chapman & Hall, New York. 941 pp.

CLEAVAMINE	Plant	--	--	CRC Handbook of Medicinal Herbs and/or CRC Handbook of Proximate Analyses
D-CAMPHOR	Root Bark	--	300.0	CRC Handbook of Medicinal Herbs and/or CRC Handbook of Proximate Analyses
DEACETYLVINCALEUKOBLASTINE	Plant	--	--	CRC Handbook of Medicinal Herbs and/or CRC Handbook of Proximate Analyses
DEACETYLVINDOLINE	Plant	--	--	CRC Handbook of Medicinal Herbs and/or CRC Handbook of Proximate Analyses
DEHYDROLOGANIN	Plant	--	--	Rizk, A.F.M., <i>The Phytochemistry of the Flora of Qatar, Scientific and Applied Research Centre, University of Qatar, Kingprint, Richmond, UK</i> , 1986.
DEOXYLOGANIN	Leaf	--	--	CRC Handbook of Medicinal Herbs and/or CRC Handbook of Proximate Analyses

Activities (1)

Cathartic ED50=800 mg/kg				Wagner & Wolff, eds. 1977. <i>New Natural Products</i> (RS164. I56. 176)
DIHYDROSITSIRIKINE	Plant	--	--	CRC Handbook of Medicinal Herbs and/or CRC Handbook of Proximate Analyses
FLUOROCARPAMINE-N-OXIDE	Plant	--	--	Rizk, A.F.M., <i>The Phytochemistry of the Flora of Qatar, Scientific and Applied Research Centre, University of Qatar, Kingprint, Richmond, UK</i> , 1986.
FURFURAL	Leaf	--	--	CRC Handbook of Medicinal Herbs and/or CRC Handbook of Proximate Analyses

Activities (6)

Antiseptic	Leung, A. Y. and Foster, S. 1995. <i>Encyclopedia of Common Natural Ingredients</i> 2nd Ed. John Wiley & Sons, New York. 649 pp.
FLavor FEMA 1-30	Aloe Research Council - Duke writeup of non-peer reviewd book by Coats and draft by Henry
Fungicide	
Insecticide	
Irritant	Newall, C. A., Anderson, L. A. and Phillipson, J. D. 1996. <i>Herbal Medicine - A Guide for Health-care Professionals</i> . The Pharmaceutical Press, London. 296pp.
Pesticide	

HIRSUTIDINE	Plant	--	--	Rizk, A.F.M., <i>The Phytochemistry of the Flora of Qatar, Scientific and Applied Research Centre, University of Qatar, Kingprint, Richmond, UK</i> , 1986.
ISOLEURODINE	Plant	--	--	CRC Handbook of Medicinal Herbs and/or CRC Handbook of Proximate Analyses
ISOSITSIRIKINE	Plant	--	--	CRC Handbook of Medicinal Herbs and/or CRC Handbook of Proximate Analyses
KAEMPFEROL	Plant	--	--	Rizk, A.F.M., <i>The Phytochemistry of the Flora of Qatar, Scientific and Applied Research Centre, University of Qatar, Kingprint, Richmond, UK</i> , 1986.

Activities (75)

11B-HSD-Inhibitor				
5-Lipoxygenase-Inhibitor IC50 (μ M)=20				
Aldose-Reductase-Inhibitor 100 μ M	Oliveira, T. T., Nagem, T. J., Miranda, L. C. G., Paula, V. F., Teixeira, M. A. 1997. Inhibitory Action on Aldose Reductase by Soybean Flavonoids. <i>J Braz Chem Soc</i> , 8(3): 211-213.			
Antiaflatoxin IC50=8.73 μ M				
Antiaflatoxin IC50=3.28 ppm				
Antiaggregant 30 μ M				
Antiallergic				
Antibacterial 20 ug/ml				
Anticancer				
Antifertility 250 mg/kg/day/60 days/oral rat	Kumar, P., Dixit*, V.P., and Khanna, P. Antifertility Studies of Kaempferol: Isolation and Identification from Tissue Culture of some Medicinally Important Plant Species. <i>Plantes medicinales et phytotherapie</i> , 23: 193-201, 1989.			
Antigingivitic 20 ug/ml				
Antiherpetic 23-92 ug/ml	Amoros, M., Simoes, C.M.O., Girre, L., et al. Synergistic Effect Of Flavones And Flavonols Against Herpes Simplex Virus Type 1 In Cell Culture. Comparison With The Antiviral Activity Of Propolis. <i>J. of Natural Products</i> 55(12):1732-1740, 1992.			
Antihistaminic	Williamson, E. M. and Evans, F. J. <i>Potter's New Cyclopaedia of Botanical Drugs and Preparations</i> , Revised Ed., Saffron Walden, the C. W. Daniel Co., Ltd., Essex UK, 362 pp, 1988, réprint 1989.			

Antiinflammatory	20 mg/kg	
Antiinflammatory	200 mg/kg ipr rat	
Antileukemic	IC50=3.1 ug/ml	Life Sciences 55: 1061.
Antilymphocytic		Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp.
Antimutagenic	ID50=10-40 nM	Phenolic Compounds in Food and Their Effects on Health. Antioxidants & Cancer Prevention. Huang, M.T., Ho, C.T. and Lee, C.Y. eds. 1992. ACS Symposium Series 507.ACS, Washington 402 pp.
Antioxidant	IC50=40 uM	
Antioxidant 3/4	quercetin	
Antioxidant IC50=1.2	ug/ml	
Antiperiodontic	20 ug/ml	
Antiplaque	20 ug/ml	
Antiradicular	7 x quercetin	
Antiseptic	20 ug/ml	
Antiserotonin	200 mg/kg ipr rat	
Antispasmodic		Williamson, E. M. and Evans, F. J., Potter's New Cyclopaedia of Botanical Drugs and Preparations, Revised Ed., Saffron Walden, the C. W. Daniel Co., Ltd., Essex UK, 362 pp, 1988, reprint 1989.
Antistaphylococic		
Antitumor		
Antitumor-Promoter		Yasukawa, K., Takido, M., Takeuchi, M., Sato, Y., Nitta, K., and Nakagawa, S. 1989. Inhibitory Effects of Flavonol Glycosides on 12-O-Tetradecanoylphorbol-13-acetate-Induced Tumor Promotion. Chem. Pharm. Bull. 38(3): 774-776, 1990.
Antilulcer	50-200 mg/kg ipr rat	
Antiviral	23-92 ug/ml	
Apoptotic	60 uM	
Aromatase-Inhibitor	IC12=1 uM/l	Journal of Medicinal Food 2: 235.1999.
COX-2-Inhibitor		
Cancer-Preventive		Stitt, P. A. Why George Should Eat Broccoli. Dougherty Co, Milwaukee, WI, 1990, 399 pp.
Carcinogenic		Hutchings, A, Scott, AH, Lewis, G, and Cunningham, A. 1996. Zulu Medicinal Plants. An inventory. University of Natal Press, Pietermaritzburg. 450 pp.
Choleretic		Leung, A. Y. and Foster, S. 1995. Encyclopedia of Common Natural Ingredients 2nd Ed. John Wiley & Sons, New York. 649 pp.
Copper-Chelator		
Cyclooxygenase-Inhibitor	IC50 (uM) =20	
Cytotoxic		
Diaphoretic?		Lawrence Review of Natural Products, Dec-90.
Diuretic		
Estrogenic	EC50=0.1-25 uM/l	Journal of Medicinal Food 2: 227.1999.
Estrogenic	EC50=0.56 uM	
Fungicide	20 ug/ml	Father Nature's Farmacy: The aggregate of all these three-letter citations.
HIV-RT-Inhibitor	IC50=50-150 ug/ml	Garcia, J., Morin,* C., Nyasse, B., Sondengam, B-L., Tchouankeu, J-C., and Tsamo, E. Complete Structural Assignments Of An Ergosterol Derivative From Eritandrophragma utile. Journal of Natural Products, 54(1): 136-142, 1991.
Hepatoprotective	IC50=5.46 uM	
Hepatoprotective	IC50=1.30 ppm	
Hypotensive		
ICAM-1-Inhibitor		
Inotropic		
Iodothyronine-Deiodinase-Inhibitor		Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp.
JNK-Inhibitor		
Lipoxygenase-Inhibitor		Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp.
MAO-Inhibitor		
Mutagenic		
NO-Inhibitor	IC50=13.9 uM	
Natriuretic		
Neuroprotective		
PAF-Inhibitor		
Pesticide		
Protisticide		Meckes, M., Calzada, F., Tapia-Contreras, A., Cedillo-Rivera, R. 1999. Antiprotozoal Properties of <i>Helianthemum glomeratum</i> . Phytotherapy Research, 13(2): 102-105.
Quinone-Reductase-Inducer	3 uM	
TNF-alpha-Inhibitor	IC50=3.99 uM	
Teratologic		

Topoisomerase-II-Inhibitor IC50=8.1 ug/ml	Constantinou, A., Mehta, R., Runyan, C., Rao, K., Vaughan, A., Moon, R. 1995. Flavonoids as DNA Topoisomerase Antagonists and Poisons: Structure-Activity Relationships. <i>J Natural Products</i> , 58: 217-225.	
Tyrosinase-Inhibitor ID50=230 uM		
Uterotrophic EC50=0.1-25 uM/l	Journal of Medicinal Food 2: 227.1999.	
Vasodilator		
cAMP-Phosphodiesterase-Inhibitor		
iNOS-Inhibitor IC50=<15 uM		
iNOS-Inhibitor IC50=13.9 uM		
L-(+)-BORNESITOL	Root -- --	Rizk, A.F.M., The Phytochemistry of the Flora of Qatar, Scientific and Applied Research Centre, University of Qatar, Kingprint, Richmond, UK, 1986.
LEUROCOLOMBINE	Plant -- --	Rizk, A.F.M., The Phytochemistry of the Flora of Qatar, Scientific and Applied Research Centre, University of Qatar, Kingprint, Richmond, UK, 1986.
LEUROCRISTINE	Plant -- --	CRC Handbook of Medicinal Herbs and/or CRC Handbook of Proximate Analyses
Activities (1)		
Teratogenic		CRC Handbook of Medicinal Herbs and/or CRC Handbook of Proximate Analyses
LEUROSIDINE	Plant -- --	*
LEUROSIDININE	Plant -- --	CRC Handbook of Medicinal Herbs and/or CRC Handbook of Proximate Analyses
LEUROSINE	Plant -- --	*
Activities (2)		
Antitumor		
Hypoglycemic		
LEUROSVINE	Root -- --	Rizk, A.F.M., The Phytochemistry of the Flora of Qatar, Scientific and Applied Research Centre, University of Qatar, Kingprint, Richmond, UK, 1986.
LOCHNERALLOL	Leaf -- --	CRC Handbook of Medicinal Herbs and/or CRC Handbook of Proximate Analyses
LOCHNERICINE	Plant -- --	CRC Handbook of Medicinal Herbs and/or CRC Handbook of Proximate Analyses
LOCHNERINE	Plant -- --	CRC Handbook of Medicinal Herbs and/or CRC Handbook of Proximate Analyses
Activities (3)		
Hypoglycemic		
LOCHNERININE	Plant -- --	CRC Handbook of Medicinal Herbs and/or CRC Handbook of Proximate Analyses
LOCHNERIVINE	Root -- --	Rizk, A.F.M., The Phytochemistry of the Flora of Qatar, Scientific and Applied Research Centre, University of Qatar, Kingprint, Richmond, UK, 1986.
LOCHNEROL	Leaf -- --	CRC Handbook of Medicinal Herbs and/or CRC Handbook of Proximate Analyses
LOCHNOVINE	Plant -- --	CRC Handbook of Medicinal Herbs and/or CRC Handbook of Proximate Analyses
LOCNOVIDINE	Plant -- --	CRC Handbook of Medicinal Herbs and/or CRC Handbook of Proximate Analyses
LOGANIN	Leaf -- --	*
Activities (4)		
Antiedemic Indomethacin		Bruneton, J. 1999. Pharmacognosy, Phytochemistry, Medicinal Plants. 2nd Ed. Lavoisier Publishing, Paris. 1119 pp.
Antiinflammatory 1/2-1/5 indomethacin		
Cathartic ED50=540 mg/kg		Wagner & Wolff, eds. 1977. New Natural Products (RS164. I56. 176)
Laxative		
MAANDROSINE	Plant -- --	CRC Handbook of Medicinal Herbs and/or CRC Handbook of Proximate Analyses
MALVIDIN	Plant -- --	Rizk, A.F.M., The Phytochemistry of the Flora of Qatar, Scientific and Applied Research Centre, University of Qatar, Kingprint, Richmond, UK, 1986.
Activities (6)		
Antifertility		
Antioxidant		
Antiperiodontal	Pizzorno, J.E. and Murray, M.T. 1985. A Textbook of Natural Medicine. John Bastyr College Publications, Seattle, Washington (Looseleaf).	
Antiplaque	Pizzorno, J.E. and Murray, M.T. 1985. A Textbook of Natural Medicine. John Bastyr College Publications, Seattle, Washington (Looseleaf).	

Prooxidant

MANNOSIDE	Plant	--	--	Rizk, A.F.M., The Phytochemistry of the Flora of Qatar, Scientific and Applied Research Centre, University of Qatar, Kingprint, Richmond, UK, 1986.
MITRAPHYLLINE	Plant	--	--	CRC Handbook of Medicinal Herbs and/or CRC Handbook of Proximate Analyses
Activities (12)				
Anesthetic	Iwu, M.M.	1993.	Handbook of African Medicinal Plants.	CRC Press, Boca Raton, FL 435 pp.
Antihypertensive	Iwu, M.M.	1993.	Handbook of African Medicinal Plants.	CRC Press, Boca Raton, FL 435 pp.
Antileukemic IC50=60-120 uM/l				
CNS-Depressant	Jeffery B. Harborne and H. Baxter, eds.	1983.	Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants.	Taylor & Frost, London. 791 pp.
Cardiodepressant	Iwu, M.M.	1993.	Handbook of African Medicinal Plants.	CRC Press, Boca Raton, FL 435 pp.
Hypotensive	Jeffery B. Harborne and H. Baxter, eds.	1983.	Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants.	Taylor & Frost, London. 791 pp.
Immunostimulant				
Myocontractant	Iwu, M.M.	1993.	Handbook of African Medicinal Plants.	CRC Press, Boca Raton, FL 435 pp.
Myorelaxant				
Pesticide				
Protisticide	Iwu, M.M.	1993.	Handbook of African Medicinal Plants.	CRC Press, Boca Raton, FL 435 pp.
Vasodilator				
NEOLEUROCISTINE	Plant	--	--	CRC Handbook of Medicinal Herbs and/or CRC Handbook of Proximate Analyses
NEOLEUROSIDINE	Plant	--	--	CRC Handbook of Medicinal Herbs and/or CRC Handbook of Proximate Analyses
OLEANOLIC-ACID	Plant	--	--	Rizk, A.F.M., The Phytochemistry of the Flora of Qatar, Scientific and Applied Research Centre, University of Qatar, Kingprint, Richmond, UK, 1986.
Activities (64)				
Abortifacient				
AntiHIV IC50=21.8 ug/ml				
AntiHIV EC50=1.7 ug/ml	Kashiwada, Y., et. al.	1998.	Anti-AIDS Agents. 30. Anti-HIV Activity of Oleanolic Acid, Pomolic Acid, and Structurally Related Triterpenoids.	J. Nat. Prod., 61 (9): 1090-1095.
AntiPGE2 IC50=24 uM				
AntiTGF-beta IC50=19-24 uM				
Antiallergic				
Antiarrhythmic 40 mg/kg				
Antithrombotic				
Antibacterial MIC=625-1,250 ug/ml				
Anticarcinomic	Chiang, L. C., Chiang, W., Chang, M. Y., Ng, L. T., Lin, C. C.	2003.	Antileukemic activity of selected natural products in Taiwan.	Am J Chin Med, 31(1):37-46.
Anticariogenic	Leung, A. Y. and Foster, S.	1995.	Encyclopedia of Common Natural Ingredients 2nd Ed.	John Wiley & Sons, New York. 649 pp.
Anticomplement IC40-50 0.01 mM/l gpg	Hansel, R., Keller, K., Rimpler, H., and Schneider, G. eds.	1992.	Hager's Handbuch der Pharmazeutischen Praxis, Drogen (A-D), 1209 pp.	1993 (E-O), 970 pp., 1994 (P-Z), 1196 pp. Springer-Verlag, Berlin.
Anticomplement IC80-90 0.05 mM/l gpg	Hansel, R., Keller, K., Rimpler, H., and Schneider, G. eds.	1992.	Hager's Handbuch der Pharmazeutischen Praxis, Drogen (A-D), 1209 pp.	1993 (E-O), 970 pp., 1994 (P-Z), 1196 pp. Springer-Verlag, Berlin.
Antiedemic IC36=40 mg/kg ipr rat				
Antifertility				
Antigingivitic MIC=625-1,250 ug/ml				
Antihepatotoxic				
Antihyperlipidemic				
Antiinflammatory 40 mg/kg ipr	Aquino, R., De Feo, V., De Simone, F., Pizza, C.*, and Cirino, G.	Plant Metabolites. New Compounds And Anti-Inflammatory Activity Of Uncaria tomentosa.	Journal of Natural Products, 54(2): 453-459,	1991.
Antiischemic 40 mg/kg				
Antileukemic	Chiang, L. C., Chiang, W., Chang, M. Y., Ng, L. T., Lin, C. C.	2003.	Antileukemic activity of selected natural products in Taiwan.	Am J Chin Med, 31(1):37-46.
Antileukotriene IC50=17 uM				
Antimalarial IC50=70-89 ug/ml				
Antinephritic IC50=19-24 uM				
Antioxidant	Balanehru, S. and Nagarajan, B.	1992.	Intervention of Adriamycin Induced Free Radical Damage.	Biochemistry International 28(4): 735-744,
Antioxidant IC46=10 uM				
Antiperiodontic MIC=625-1,250 ug/ml				
Antiperioxidant IC30=200 ug/ml				
Antiplaque MIC=625-1,250 ug/ml				

ug/ml

Antisarcomic

Antiseptic MIC=625-1,250 ug/ml

Antitumor

Antitumor (Breast)

Chiang, L. C., Chiang, W., Chang, M. Y., Ng, L. T., Lin, C. C. 2003. Antileukemic activity of selected natural products in Taiwan. *Am J Chin Med*, 31(1):37-46.

Antitumor (Colon)

Chiang, L. C., Chiang, W., Chang, M. Y., Ng, L. T., Lin, C. C. 2003. Antileukemic activity of selected natural products in Taiwan. *Am J Chin Med*, 31(1):37-46.

Antitumor (Kidney)

Chiang, L. C., Chiang, W., Chang, M. Y., Ng, L. T., Lin, C. C. 2003. Antileukemic activity of selected natural products in Taiwan. *Am J Chin Med*, 31(1):37-46.

Antitumor (Lung)

Chiang, L. C., Chiang, W., Chang, M. Y., Ng, L. T., Lin, C. C. 2003. Antileukemic activity of selected natural products in Taiwan. *Am J Chin Med*, 31(1):37-46.

Antitumor (Pancreas)

Chiang, L. C., Chiang, W., Chang, M. Y., Ng, L. T., Lin, C. C. 2003. Antileukemic activity of selected natural products in Taiwan. *Am J Chin Med*, 31(1):37-46.

Antiulcer >carbenoxolone

Antiviral EC50=1.7 ug/ml

Kashiwada, Y., et. al. 1998. Anti-AIDS Agents. 30. Anti-HIV Activity of Oleanolic Acid, Pomolic Acid, and Structurally Related Triterpenoids. *J. Nat. Prod.*, 61 (9): 1090-1095.

Antiviral IC50=21.8 ug/ml

Kashiwada, Y., et. al. 1998. Anti-AIDS Agents. 30. Anti-HIV Activity of Oleanolic Acid, Pomolic Acid, and Structurally Related Triterpenoids. *J. Nat. Prod.*, 61 (9): 1090-1095.

Aromatase-Inhibitor

Beta-Blocker

Beta-Glucuronidase-Inhibitor ~100 mg/kg

COX-2-Inhibitor IC50=295 uM/

COX-2-Inhibitor Ringbom, T., Seguar, L., Noreen, Y., Perera, P., Bohlin, L. 1998. Ursolic Acid from *Plantago major*, a Selective Inhibitor of Cyclooxygenase-2 Catalyzed Prostaglandin Biosynthesis. *J. Nat. Prod.*, 61(10): 1212-1215.

Cancer-Preventive

Stitt, P. A. Why George Should Eat Broccoli. Dougherty Co, Milwaukee, WI, 1990, 399 pp.

Cardioprotective 40 mg/kg

Cardiotonic

Cyclooxygenase-Inhibitor

Diuretic

Leung, A. Y. and Foster, S. 1995. Encyclopedia of Common Natural Ingredients 2nd Ed. John Wiley & Sons, New York. 649 pp.

Elastase-Inhibitor IC50=~15 uM

Hepatoprotective

Advance in Chinese Medicinal Materials Research. 1985. Eds. H. M. Chang, H. W. Yeung, W. -W. Tso and A. Koo. World Scientific Publishing Co., Philadelphia Pa., page 211.

Hypolipemic

Hypotensive

Immunomodulator

Leucocytogenic

NF-kB-Inhibitor

Phagocytotic

Piscicide

ANON. 1948-1976. The Wealth of India raw materials. Publications and Information Directorate, CSIR, New Delhi. 11 volumes.

Prostaglandin-Synthesis-Inhibitor igs mus

Sedative

Uterotonic

Vasopressor

PERICALLINE	Plant	--	--	CRC Handbook of Medicinal Herbs and/or CRC Handbook of Proximate Analyses
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PERIVINE	Plant	--	--	CRC Handbook of Medicinal Herbs and/or CRC Handbook of Proximate Analyses
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Activities (5)

Anesthetic

Antipolio Vlietinck, A.J. and Domisse, R.A. eds. 1985. Advances in Medicinal Plant Research. Wiss. Verlag. Stuttgart.

Antitumor

Antiviral Vlietinck, A.J. and Domisse, R.A. eds. 1985. Advances in Medicinal Plant Research. Wiss. Verlag. Stuttgart.

Pesticide

PERMIVIDINE	Plant	--	--	CRC Handbook of Medicinal Herbs and/or CRC Handbook of Proximate Analyses
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PERMIVINE	Plant	--	--	CRC Handbook of Medicinal Herbs and/or CRC Handbook of Proximate Analyses
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PEROSINE	Plant	--	--	CRC Handbook of Medicinal Herbs and/or CRC Handbook of Proximate Analyses
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PETUNIDINE	Plant	--	--	Rizk, A.F.M., The Phytochemistry of the Flora of Qatar, Scientific and Applied Research Centre, University of Qatar, Kingprint, Richmond, UK, 1986.
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PLEUROSINE	Plant	--	--	CRC Handbook of Medicinal Herbs and/or CRC Handbook of Proximate Analyses
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PROTOCATECHUIC-ACID	Plant	--	--	Rizk, A.F.M., The Phytochemistry of the Flora of Qatar, Scientific and Applied Research Centre, University of Qatar, Kingprint, Richmond, UK, 1986.
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Activities (43)

Allergenic

AntiLegionella	
Antiarrhythmic	Advance in Chinese Medicinal Materials Research. 1985. Eds. H. M. Chang, H. W. Yeung, W. -W. Tso and A. Koo. World Scientific Publishing Co., Philadelphia Pa., page 407.
Antiasthmatic	
Antibacterial	Lamikanra, A., Ogundaini, A.O., and Ogungbamila*, F.O. Antibacterial Constituents of Alchornea cordifolia Leaves. Phytotherapy Research 4(5): 198.
Anticlastogen	
Antihepatotoxic	Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp.
Antiherpetic	
Antiinflammatory	Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp.
Antiischemic	Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp.
Antileukemic	
Antimelanogenic ID60=0.5 uM/ml	
Antimutagenic	
Antiofhdic	Economic & Medicinal Plant Research, 5: 363.
Antioxidant 2/3 quercetin	
Antioxidant 10 x alpha-tocopherol	
Antioxidant 1/2 BHT	
Antiperoxidant IC50=>100 uM	Planta Medica, 57: A54, 1991.
Antiperoxidant IC75=200 ug/ml	
Antiradicular	
Antiseptic	
Antispasmodic EC50=4.6-17 uM	Ortiz de Urbina, JJ., Martin, M.L., Sevilla, M.A., Montero, M.J., Carron, R., and San Roman, L. Antispasmodic Activity on Rat Smooth Muscle of Polyphenol Compounds Caffeic and Protocatechic Acids. Phytotherapy Research 4(2): 73, 1990.
Antitumor (Colon)	
Antitumor (Mouth)	
Antitumor (Skin)	
Antitussive	Advance in Chinese Medicinal Materials Research. 1985. Eds. H. M. Chang, H. W. Yeung, W. -W. Tso and A. Koo. World Scientific Publishing Co., Philadelphia Pa., page 200.
Antiviral	
Apoptotic	
Carcinogenic	
Cardioprotective	
Chemopreventive 100 ppm orl rat	
Fungicide 500 ug/ml	Lydon, J. & Duke, S., The potential of pesticides from plants, pp. 1-41 in Craker, L. & Simon, J., eds, Herbs, Spices & Medicinal Plants: Recent Advances in Botany, Horticulture, & Pharmacology, v. 4, Oryx Press, Phoenix, 1989, 267pp.
Glutathione- Depleting	
Hepatotoxic	
Immunostimulant	Economic & Medicinal Plant Research, 1: 124.
Nephrotoxic	
Pesticide	
Phagocytotic	Economic & Medicinal Plant Research, 1: 124.
Prostaglandigenic	
Secretogogue	Newall, C. A., Anderson, L. A. and Phillipson, J. D. 1996. Herbal Medicine - A Guide for Health-care Professionals. The Pharmaceutical Press, London. 296pp.
Tyrosinase-Inhibitor ID60=0.5 uM/ml	
Ubiquit	Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp.

PSEUDOVINCALEUKOBLASTINEDIOL Plant -- -- Rizk, A.F.M., The Phytochemistry of the Flora of Qatar, Scientific and Applied Research Centre, University of Qatar, Kingprint, Richmond, UK, 1986.

QUERCETIN Plant -- -- Rizk, A.F.M., The Phytochemistry of the Flora of Qatar, Scientific and Applied Research Centre, University of Qatar, Kingprint, Richmond, UK, 1986.

Activities (176)

11B-HSD-Inhibitor

5-Lipoxygenase-Inhibitor
IC50 (uM)=4

ATPase-Inhibitor Nigg, H.N. and Seigler, D.S., eds. 1992. Phytochemical Resources for Medicine and Agriculture. Plenum Press, New York. 445 pp.

Aldehyde-Oxidase-
Inhibitor IC70-96=10 uM

Aldose-Reductase-
Inhibitor 100 uM

Aldose-Reductase-
Inhibitor 4 ug/ml Ichikawa, K., et al. 1991. Isolation and Structure Determination of Aldose Reductase Inhibitors from Traditional Thai Medicine, and Syntheses of Their Derivatives. Sankyo Kenkyusho Nempo, 43: 99-110.

Aldose-Reductase-
Inhibitor IC50=0.84 ua/ml Okada,Y,et al.1995.Search for Naturally Occurring Substances to Prevent the Complications of Diabetes.II.Inhibitory Effect of Coumarin and Flavonoid Derivatives on Bovine Lens Aldose Reductase and Rabbit Platelet Aggregation.Chem Pharm Bull43(8):1385-1387

Aldose-Reductase-Inhibitor IC50=0.344 uM	Mao, X. M., Zhang, J. Q. 1993. Inhibition of Aldose Reductase by Extracts of Chinese Herbal Medicine. <i>Zhongguo Zhongyao Zazhi</i> , 18(10): 623-624.
Allelochemical IC82=1 mM	Lydon, J. & Duke, S., The potential of pesticides from plants, pp. 1-41 in Craker, L. & Simon, J., eds, <i>Herbs, Spices & Medicinal Plants: Recent Advances in Botany, Horticulture, & Pharmacology</i> , v. 4, Oryx Press, Phoenix, 1989, 267pp.
Allergenic	Jeffery B. Harborne and H. Baxter, eds. 1983. <i>Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants</i> . Taylor & Frost, London. 791 pp.
Analgesic	
AntiCrohn's 400 mg/man/3x/day	Pizzorno, J.E. and Murray, M.T. 1985. <i>A Textbook of Natural Medicine</i> . John Bastyr College Publications, Seattle, Washington (Looseleaf).
AntiGTF ID50=120 ug/ml	
AntiHIV	
AntiPMS 500 mg/2x/day/wmn	Pizzorno, J.E. and Murray, M.T. 1985. <i>A Textbook of Natural Medicine</i> . John Bastyr College Publications, Seattle, Washington (Looseleaf).
Antiaflatoxin IC50=25 uM	
Antiaflatoxin IC50=7.5 ppm	
Antiaggregant IC50=55 uM	Economic & Medicinal Plant Research, 5: 333.
Antiaggregant 30 uM	
Antiaging	
Antiallergic IC50=14 uM	Jim Duke's personal files.
Antialzheimeran	
Antianaphylactic	Meli, R., Autore, G., Di Carlo, G., Capasso, F. Inhibitory Action of Quercetin on Intestinal Transit in Mice. <i>Phytotherapy Research</i> 4(5): 201, 1990.
Antiangiogenic	
Antiarthritic	
Antiasthmatic IC50=14 uM	
Antiatherosclerotic	
Antibacterial	Jeffery B. Harborne and H. Baxter, eds. 1983. <i>Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants</i> . Taylor & Frost, London. 791 pp.
Anticarcinomic (Breast) IC50=1.5 uM	Medline (post 1990 searches filed in my computer)
Anticariogenic ID50=120 ug/ml	
Anticataract	
Anticolic 400 mg/man/3x/day	Pizzorno, J.E. and Murray, M.T. 1985. <i>A Textbook of Natural Medicine</i> . John Bastyr College Publications, Seattle, Washington (Looseleaf).
Anticomplementary	
Anticystitic 1,000 mg/day/4 weeks	
Antidepressant	
Antidermatitic	Pizzorno, J.E. and Murray, M.T. 1985. <i>A Textbook of Natural Medicine</i> . John Bastyr College Publications, Seattle, Washington (Looseleaf).
Antidiabetic	
Antielastase IC50=0.8 ug/ml	
Antiencephalitic	Economic & Medicinal Plant Research, 5: 199.
Antiescherichic	
Antiestrogenic	
Antifeedant IC52=<1,000 ppm diet	Lydon, J. & Duke, S., The potential of pesticides from plants, pp. 1-41 in Craker, L. & Simon, J., eds, <i>Herbs, Spices & Medicinal Plants: Recent Advances in Botany, Horticulture, & Pharmacology</i> , v. 4, Oryx Press, Phoenix, 1989, 267pp.
Antifibrosarcomic	
Antiflu	Vlietinck, A.J. and Dommisse, R.A. eds. 1985. <i>Advances in Medicinal Plant Research</i> . Wiss. Verlag. Stuttgart.
Antigastric	Rastitel'nye Resursy, 21: 85.
Antigonadotropic	Jeffery B. Harborne and H. Baxter, eds. 1983. <i>Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants</i> . Taylor & Frost, London. 791 pp.
Antihepatotoxic	Joyeux, M., Rolland, A., Fleurentin, J., Mortier, F., and Dorfman, P. 1989. Tert-Butyl Hydroperoxide-Induced Injury in Isolated Rat Hepatocytes: A Model for Studying Anti-Hepatotoxic Crude Drugs. <i>Planta Medica</i> 56(2): 171-173, 1990.
Antiherpetic 48-150 ug/ml	
Antihistaminic IC50=<10 uM	
Antihydrophobic	Vlietinck, A.J. and Dommisse, R.A. eds. 1985. <i>Advances in Medicinal Plant Research</i> . Wiss. Verlag. Stuttgart.
Antihypertensive	Huang, K. C. 1993. <i>The Pharmacology of Chinese Herbs</i> . CRC Press, Boca Raton, FL 388 pp.
Antiinflammatory 20-150 mg/kg	Fitoterapia No.5-1990.
Antileishmanic IC50=64	
Antileukemic IC50=10 uM	Economic & Medicinal Plant Research, 5: 225.
Antileukemic IC50=>10 ug/ml	Life Sciences 55: 1061.
Antileukemic 5.5-60 uM	
Antileukotriene	Pizzorno, J.E. and Murray, M.T. 1985. <i>A Textbook of Natural Medicine</i> . John Bastyr College Publications, Seattle, Washington (Looseleaf).
Antilipoperoxidant IC67=>50	
Antimalarial IC50=1-6.4 ug/ml	Medicinal and Poisonous Plants of the Tropics. Leeuwenberg, A.J.M., ed. Pudoc, Wageningen. 1987.
Antimelanomic	
Antimetastatic	
Antimutagenic ID50=2-5	Phenolic Compounds in Food and Their Effects on Health. Antioxidants & Cancer Prevention. Huana. M.T.. Ho. C.T. and Lee. C.Y. eds. 1992. ACS

Antimutagenic ID50=0.62 ug/ml	
Antimyocarditic	Economic & Medicinal Plant Research, 5: 199.
Antinitrosaminic	
Antinociceptive	
Antioxidant IC96=300 ppm	Phenolic Compounds in Food and Their Effects on Health. Antioxidants & Cancer Prevention. Huang, M.T., Ho, C.T. and Lee, C.Y. eds. 1992. ACS Symposium Series 507.ACS, Washington 402 pp.
Antioxidant ED50=2.3 uM	Seidel, V., Verholle, M., Malard, Y., Tillequin, F., Fruchart, J-C., Duriez, P., Bailleul, F., Teissier, E. 2000. Phenylpropanoids from <i>Ballota nigra</i> L. Inhibit in vitro LDL Peroxidation. Phytotherapy Research, 14(2): 93-98.
Antioxidant 4.7 x Vit. E	
Antioxidant IC47=10 uM	
Antipancreatic	Joseph, J., Nadeau, D. and Underwood, A. 2001. The Color Code. Hyperion, NY.
Antiperiodontal	Pizzorno, J.E. and Murray, M.T. 1985. A Textbook of Natural Medicine. John Bastyr College Publications, Seattle, Washington (Looseleaf).
Antiperistaltic	
Antipermeability	
Antiperoxidant	Planta Medica, 57: A110, 1991.
Antipharyngitic	Pizzorno, J.E. and Murray, M.T. 1985. A Textbook of Natural Medicine. John Bastyr College Publications, Seattle, Washington (Looseleaf).
Antiplaque	Pizzorno, J.E. and Murray, M.T. 1985. A Textbook of Natural Medicine. John Bastyr College Publications, Seattle, Washington (Looseleaf).
Antiplasmodial IC50=13-64	
Antipodriac	
Antipolio	Pizzorno, J.E. and Murray, M.T. 1985. A Textbook of Natural Medicine. John Bastyr College Publications, Seattle, Washington (Looseleaf).
Antiproliferant 10 nM	
Antiprostanoid	
Antiprostatic	Joseph, J., Nadeau, D. and Underwood, A. 2001. The Color Code. Hyperion, NY.
Antipsoriac	Pizzorno, J.E. and Murray, M.T. 1985. A Textbook of Natural Medicine. John Bastyr College Publications, Seattle, Washington (Looseleaf).
Antiradicular IC50=4.6 uM	Planta Medica, 56(6): 695, 1990.
Antispasmodic	
Antistreptococcic ID50=120 ug/ml	
Antithiamin	Phenolic Compounds in Food and Their Effects on Health, 69.
Antithrombic	
Antitrypanosomic IC50=13	
Antitumor 10 uM	
Antitumor (Bladder)	
Antitumor (Breast)	
Antitumor (Colon)	
Antitumor (Lung)	
Antitumor (Ovary)	
Antitumor (Skin) 20 uM	
Antitumor-Promoter	Pizzorno, J.E. and Murray, M.T. 1985. A Textbook of Natural Medicine. John Bastyr College Publications, Seattle, Washington (Looseleaf).
Antiulcer	
Antiviral IC50=10 uM	Economic & Medicinal Plant Research, 5: 225.
Antiviral 48-150 ug/ml	Amoros, M., Simoes, C.M.O., Girre, L., et al. Synergistic Effect Of Flavones And Flavonols Against Herpes Simplex Virus Type 1 In Cell Culture. Comparison With The Antiviral Activity Of Propolis. J. of Natural Products 55(12):1732-1740, 1992.
Apoptotic 20-60 uM	
Bacteristat 10 mg/ml	
Bradycardiac	Huang, K. C. 1993. The Pharmacology of Chinese Herbs. CRC Press, Boca Raton, FL 388 pp.
COMT-Inhibitor	
COX-2-Inhibitor <40 uM	
Calmodulin-Antagonist	Pizzorno, J.E. and Murray, M.T. 1985. A Textbook of Natural Medicine. John Bastyr College Publications, Seattle, Washington (Looseleaf).
Cancer-Preventive	Stitt, P. A. Why George Should Eat Broccoli. Dougherty Co, Milwaukee, WI, 1990, 399 pp.
Candidicide	
Capillariprotective	Merck 11th Edition
Carcinogenic 40,000 ppm (diet) mus	Nigg, H.N. and Seigler, D.S., eds. 1992. Phytochemical Resources for Medicine and Agriculture. Plenum Press, New York. 445 pp.
Catabolic	
Copper-Chelator	
Cyclooxygenase-Inhibitor	
Cytochrome-P450-1A2-Inhibitor	
Cytotoxic ED50=70 ug/ml	Matsukawa, Y., et al. The Effect of Quercetin and Other Flavonoids on Cell Cycle Progression and Growth of Human Gastric Cancer Cells. Planta Medica, 56(6): 677, 1990.
Cytotoxic IC82=100 ug/ml	Planta Medica, 57: A113, 1991.
Deiodinase-Inhibitor	Jim Duke's personal files.
Diaphoretic?	Lawrence Review of Natural Products, Dec-90.
Differentiator 5.5 uM	
Estrogenic 10% genistein	
Fungicide	
Glucosyl-Transferase-	

HIV-RT-Inhibitor IC50=<1 ug/ml	Nakane, H., Fukushima, M., and Ono*, K. Differential Inhibition Of Reverse Transcriptase And Various DNA Polymerases By Digallic Acid And Its Derivatives. <i>Journal of Natural Products</i> , 53(5): 1234-1240, 1990.
Hemostat	Huang, K. C. 1993. <i>The Pharmacology of Chinese Herbs</i> . CRC Press, Boca Raton, FL 388 pp.
Hepatomagenic 5,000 ppm (diet) rat	Phenolic Compounds in Food and Their Effects on Health. <i>Antioxidants & Cancer Prevention</i> . Huang, M.T., Ho, C.T. and Lee, C.Y. eds. 1992. ACS Symposium Series 507.ACS, Washington 402 pp.
Hepatoprotective	
Hypoglycemic 100 mg/kg orl rat	Ivorra, M.D., Paya, M., and Villar, A. 1989. A Review of Natural Products and Plants as Potential Antidiabetic Drugs. <i>Journal of Ethnopharmacology</i> , 27: 243-275, 1989.
Inotropic	
Insulinogenic	Pizzorno, J.E. and Murray, M.T. 1985. <i>A Textbook of Natural Medicine</i> . John Bastyr College Publications, Seattle, Washington (Looseleaf).
Juvabional	Lydon, J. & Duke, S., The potential of pesticides from plants, pp. 1-41 in Craker, L. & Simon, J., eds, <i>Herbs, Spices & Medicinal Plants: Recent Advances in Botany, Horticulture, & Pharmacology</i> , v. 4, Oryx Press, Phoenix, 1989, 267pp.
Larvistat 8,000 ppm diet	Lydon, J. & Duke, S., The potential of pesticides from plants, pp. 1-41 in Craker, L. & Simon, J., eds, <i>Herbs, Spices & Medicinal Plants: Recent Advances in Botany, Horticulture, & Pharmacology</i> , v. 4, Oryx Press, Phoenix, 1989, 267pp.
Lipoxygenase-Inhibitor IC11=<1.25 uM	Oszmianski, J. and Lee, C.Y. 1990. Inhibitory Effect of Phenolics on Carotene Bleaching in Vegetables. <i>J. Agric. Food Chem.</i> 38: 688-690.
Lipoxygenase-Inhibitor IC50=<0.1-5 uM	
MAO-A-Inhibitor	
MMP-9-Inhibitor 20 uM	
Mast-Cell-Stabilizer	
Metal-Chelator (Copper)	Seidel, V., Verholle, M., Malard, Y., Tillequin, F., Fruchart, J-C., Duriez, P., Bailleul, F., Teissier, E. 2000. Phenylpropanoids from <i>Ballota nigra</i> L. Inhibit in vitro LDL Peroxidation. <i>Phytotherapy Research</i> , 14(2): 93-98.
Metalloproteinase-Inhibitor IC50=>42 uM	
Mutagenic	
NADH-Oxidase-Inhibitor	
NEP-Inhibitor IC50=>42 uM	
NF-kB-Inhibitor	
NO-Inhibitor IC>50=125 uM	
NO-Inhibitor IC50=20 uM	
NO-Synthase-Inhibitor 5-50 uM	
Neuroprotective 5-25 uM	
Ornithine-Decarboxylase-Inhibitor <10 uM	
P450-Inducer 5 uM	Father Nature's Farmacy: The aggregate of all these three-letter citations.
P450-Inhibitor 50-100 uM	Father Nature's Farmacy: The aggregate of all these three-letter citations.
PGE2-Inhibitor	
PTK-Inhibitor 0.4-24 uM	
Pesticide	
Phospholipase-Inhibitor	
Plasmodicide	Neuwinger, H. D. 1996. <i>African Ethnobotany - Poisons and Drugs</i> . Chapman & Hall, New York. 941 pp.
Proliferant	
Prostaglandin-Synthesis-Inhibitor 40 ug/ml	Ibewuike, J. C., Ogungbamila, F. O., Ogundaini, A. O., Okeke, I. N., Bohlin, L. 1997. Antiinflammatory and Antibacterial Activities of C-methylflavonol from <i>Pilosostigma thonningii</i> . <i>Phytotherapy Research</i> , 11(4): 281-284.
Protein-Kinase-C-Inhibitor	Naim, M., Zehavi, U., Nagy, S., and Rouseff, R.L. Hydroxycinnamic Acids as Off-Flavor Precursors in Citrus Fruits and Their Products. <i>Phenolic Compounds in Food and Their Effects on Health</i> , Ch.14.
Quinone-Reductase-Inducer 6 uM	Uda, Y., Price, K. R., Williamson, G., Rhodes, M. J. C. 1997. Induction of the Anticarcinogenic Marker Enzyme, Quinone Reductase, in Murine Hepatoma Cells In Vitro by Flavonoids. <i>Cancer Lett.</i> , 120 (2): 213-216.
Quinone-Reductase-Inducer 13 uM	
TNF-alpha-Inhibitor IC50=<3.11 uM	
Teratologic	
Topoisomerase-I-Inhibitor IC50=<12.8 ug/ml	
Topoisomerase-I-Inhibitor IC50=<42 uM	
Topoisomerase-II-Inhibitor IC50=<1-6.9 ug/ml	
Topoisomerase-II-Inhibitor IC50=<23-40 uM	
Tumorigenic 0.1% diet orl rat/yr	Jim Duke's personal files.
Tyrosinase-Inhibitor ID50=<70 uM	
Tyrosine-Kinase-Inhibitor	Economic & Medicinal Plant Research, 6: 170.
VEGF-Inhibitor	
Vasodilator	
Xanthine-Oxidase-Inhibitor IC50=>0.4 ug/ml	Chem. & Pharm. Bull. 38: 1772.
Xanthine-Oxidase-Inhibitor IC50=<10.6 ug/ml	
Xanthine-Oxidase-Inhibitor 3.1 uM	
cAMP-Phosphodiesterase-	Pizzorno, J.E. and Murray, M.T. 1985. <i>A Textbook of Natural Medicine</i> . John Bastyr College Publications, Seattle, Washington (Looseleaf).

RESERPINE	Plant	--	--	CRC Handbook of Medicinal Herbs and/or CRC Handbook of Proximate Analyses
Activities (32)				
Abortifacient 0.04 mg/kg ipr? rbt				
Abortifacient				
AntiRaynaud's 1-1.5 mg/iar/man/day	Martindale's 28th			
Antidiadrenergic				
Anticonvulsant				
Antidyskinetic 500-5,000 ug/mán/day	Martindale's 28th			
Antihypertensive 250-500 ug /man/day	Martindale's 28th			
Antileukemic				
Antimigraine	Martindale's 28th			
Antipsychotic 100-1,000 ug/man/day	Martindale's 28th			
Antipyretic				
Antischizophrenic				
Antistress				
Antitumor				
Bradycardic	Martindale's 28th			
CNS-Depressant				
Calcium-Antagonist 1 uM rbt, rat, gpg	Pizzorno, J.E. and Murray, M.T. 1985. A Textbook of Natural Medicine. John Bastyr College Publications, Seattle, Washington (Looseleaf).			
Hepatoprotective				
Hypotensive	Merck 11th Edition			
Hypothermic 2.5 mg/kg scu mus				
MDR-Inhibitor 2.5-10 uM				
Peristaltic				
Rodenticide	Martindale's 28th			
Sedative	Martindale's 28th			
Serotoninolytic	Pizzorno, J.E. and Murray, M.T. 1985. A Textbook of Natural Medicine. John Bastyr College Publications, Seattle, Washington (Looseleaf).			
Teratogenic 1-2 mg/kg ims ipr rat				
Tranquilizer	Merck 11th Edition			
Tumorigenic 5-10 ppm feed orl mus				
Ulcerogenic 0.1 mg/kg/day/6 weeks' imr rat				
Uterotonic	Williamson, E. M. and Evans, F. J., Potter's New Cyclopaedia of Botanical Drugs and Preparations, Revised Ed., Saffron Walden, the C. W. Daniel Co., Ltd., Essex UK, 362 pp, 1988, reprint 1989.			
Vasoconstrictor				
RESIN	Root Bark	--	20000.0	CRC Handbook of Medicinal Herbs and/or CRC Handbook of Proximate Analyses
ROSEOSIDE	Leaf	--	--	CRC Handbook of Medicinal Herbs and/or CRC Handbook of Proximate Analyses
ROVIDINE	Plant	--	--	CRC Handbook of Medicinal Herbs and/or CRC Handbook of Proximate Analyses
ROVIDINE-SULFATE	Plant	--	--	CRC Handbook of Medicinal Herbs and/or CRC Handbook of Proximate Analyses
SECOLOGANIN	Plant	--	--	Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp.
SERPENTINE	Plant	--	--	CRC Handbook of Medicinal Herbs and/or CRC Handbook of Proximate Analyses
Activities (9)				
Antibacterial				
Antitumor				
Carcinogenic	CRC Handbook of Medicinal Herbs and/or CRC Handbook of Proximate Analyses			
Fungicide	Recio, M. C., Rios, J. L., and Villar, A., A review of some antimicrobial compounds isolated from medicinal plants reported in the literature 1978-1988, Phytotherapy Research, 3(4), 1989, 117-125.			
Hypotensive				
Pesticide				
Sedative				
Topoisomerase-II- Inhibitor 50 uM	Dassonneville, L., et al. 1999. Stimulation of Topoisomerase II-Mediated DNA Cleavage by Three DNA-Intercalating Plant Alkaloids: Cyptolepine, Matadine, and Serpentine. Biochemistry, 38: 7719-7726.			
Tranquilizer				

SITSIRIKINE	Plant	--	--	CRC Handbook of Medicinal Herbs and/or CRC Handbook of Proximate Analyses
SWEROSIDE	Plant	--	--	Rizk, A.F.M., The Phytochemistry of the Flora of Qatar, Scientific and Applied Research Centre, University of Qatar, Kingprint, Richmond, UK, 1986.
Activities (9)				
Antibacillus				
Antibacterial				
Antiescherichic				
Antihepatotic				
Antiseptic				
Antistaphylococcic				
Artemicide 34 ug/ml				
Hepatoprotective 25-50 mg/kg				
Pesticide				
TANNIN	Leaf	--	--	CRC Handbook of Medicinal Herbs and/or CRC Handbook of Proximate Analyses
Activities (35)				
Anthelmintic				
AntiHIV				
Antibacterial				
Anticancer				
Anticariogenic				
Antidiarrheic				
Antidysenteric				
Antihepatotoxic				
Antihypertensive				
Antilipolytic				
Antimutagenic				
Antinephritic	Uchida, U., Ohta, H., Niwa, M., Mori, A., Nonaka, G-i., Nishioka, I., and Zaki, M. 1989. Prolongation of Life Span of Stroke-Prone Spontaneously Hypertensive Rats (SHRSP) Ingesting Persimmon Tannin. <i>Chem. Pharm. Bull.</i> 38(4): 1049-1052, 1990.			
Antiphidic	Economic & Medicinal Plant Research, 5: 363.			
Antioxidant IC50=1.44 ug/ml				
Antioxidant 1/3 quercetin				
Antiradicular 500 mg/kg/day orl mus	Uchida, U., Ohta, H., Niwa, M., Mori, A., Nonaka, G-i., Nishioka, I., and Zaki, M. 1989. Prolongation of Life Span of Stroke-Prone Spontaneously Hypertensive Rats (SHRSP) Ingesting Persimmon Tannin. <i>Chem. Pharm. Bull.</i> 38(4): 1049-1052, 1990.			
Antiradicular 1/3 quercetin				
Antirenitic	Uchida, U., Ohta, H., Niwa, M., Mori, A., Nonaka, G-i., Nishioka, I., and Zaki, M. 1989. Prolongation of Life Span of Stroke-Prone Spontaneously Hypertensive Rats (SHRSP) Ingesting Persimmon Tannin. <i>Chem. Pharm. Bull.</i> 38(4): 1049-1052, 1990.			
Antitumor				
Antitumor-Promoter				
Antiulcer				
Antiviral				
Cancer-Preventive	HerbalGram No. 22 - Spring 1990, page 14.			
Carcinogenic				
Chelator				
Cyclooxygenase- Inhibitor				
Glucosyl- Transferase-Inhibitor				
Hepatoprotective				
Immunosuppressant				
Lipoxygenase- Inhibitor				
MAO-Inhibitor				
Ornithine- Decarboxylase- Inhibitor				
Pesticide				
Psychotropic	Uchida, U., Ohta, H., Niwa, M., Mori, A., Nonaka, G-i., Nishioka, I., and Zaki, M. 1989. Prolongation of Life Span of Stroke-Prone Spontaneously Hypertensive Rats (SHRSP) Ingesting Persimmon Tannin. <i>Chem. Pharm. Bull.</i> 38(4): 1049-1052, 1990.			
Xanthine-Oxidase- Inhibitor				
TETRAHYDROALSTONINE	Plant	--	--	CRC Handbook of Medicinal Herbs and/or CRC Handbook of Proximate Analyses
Activities (1)				
Hypoglycemic				
TETRAHYDROSERPENTINE	Plant	--	--	CRC Handbook of Medicinal Herbs and/or CRC Handbook of Proximate Analyses

Activities (89)

Analgesic	
AntiEBV	Newall, C. A., Anderson, L. A. and Phillipson, J. D. 1996. <i>Herbal Medicine - A Guide for Health-care Professionals</i> . The Pharmaceutical Press, London. 296pp.
AntiHIV EC50=2.0 ug/ml	Kashiwada, Y., et. al. 1998. <i>Anti-AIDS Agents</i> . 30. Anti-HIV Activity of Oleanolic Acid, Pomolic Acid, and Structurally Related Triterpenoids. <i>J. Nat. Prod.</i> , 61 (9): 1090-1095.
AntiHIV IC50=6.5 ug/ml	Kashiwada, Y., et. al. 1998. <i>Anti-AIDS Agents</i> . 30. Anti-HIV Activity of Oleanolic Acid, Pomolic Acid, and Structurally Related Triterpenoids. <i>J. Nat. Prod.</i> , 61 (9): 1090-1095.
AntiHIV IC85=18 ug/ml	
AntiHIV 6.7 uM	
AntiTGF-beta IC50=6-7.5 uM	
Antialzheimeran	Ringbom, T., Seguar, L., Noreen, Y., Perera, P., Bohlin, L. 1998. Ursolic Acid from <i>Plantago major</i> , a Selective Inhibitor of Cyclooxygenase-2 Catalyzed Prostaglandin Biosynthesis. <i>J. Nat. Prod.</i> , 61(10): 1212-1215.
Antiarrhythmic	
Antiarthritic	Planta Medica, 57: A56, 1991.
Antibacterial	
Anticancer	Ringbom, T., Seguar, L., Noreen, Y., Perera, P., Bohlin, L. 1998. Ursolic Acid from <i>Plantago major</i> , a Selective Inhibitor of Cyclooxygenase-2 Catalyzed Prostaglandin Biosynthesis. <i>J. Nat. Prod.</i> , 61(10): 1212-1215.
Anticancer (Colon)	Ringbom, T., Seguar, L., Noreen, Y., Perera, P., Bohlin, L. 1998. Ursolic Acid from <i>Plantago major</i> , a Selective Inhibitor of Cyclooxygenase-2 Catalyzed Prostaglandin Biosynthesis. <i>J. Nat. Prod.</i> , 61(10): 1212-1215.
Anticarcinomic	Chiang, L. C., Chiang, W., Chang, M. Y., Ng, L. T., Lin, C. C. 2003. Antileukemic activity of selected natural products in Taiwan. <i>Am J Chin Med.</i> , 31(1):37-46.
Anticariogenic	Leung, A. Y. and Foster, S. 1995. <i>Encyclopedia of Common Natural Ingredients</i> 2nd Ed. John Wiley & Sons, New York. 649 pp.
Anticholestatic 28-100 mg/kg orl	Shukla, B., Visen, P.K.S., Patnaik, G.K., Tripathi, S.C., Srimal, R.C., Dayal, R., and Dobhal, P.C. Hepatoprotective Activity in the Rat of Ursolic Acid Isolated from Eucalyptus Hybrid. <i>Phytotherapy Research</i> 6: 74-79, 1992.
Anticomplement IC100 0.1 mM/l gpg	Hansel, R., Keller, K., Rimpler, H., and Schneider, G. eds. 1992. <i>Hager's Handbuch der Pharmazeutischen Praxis</i> , Drogen (A-D), 1209 pp., 1993 (E-O), 970 pp., 1994 (P-Z), 1196 pp. Springer-Verlag, Berlin.
Anticomplement IC80-90 0.05 mM/l gpg	Hansel, R., Keller, K., Rimpler, H., and Schneider, G. eds. 1992. <i>Hager's Handbuch der Pharmazeutischen Praxis</i> , Drogen (A-D), 1209 pp., 1993 (E-O), 970 pp., 1994 (P-Z), 1196 pp. Springer-Verlag, Berlin.
Antidiabetic	Chemical Constituents of Oriental Herbs (3 diff. books)
Antiedemic	
Antiescherichic	
Antifibrosarcomic	
IC80=10 uM	
Antihepatotoxic 5-20 mg/kg ipr	Shukla, B., Visen, P.K.S., Patnaik, G.K., Tripathi, S.C., Srimal, R.C., Dayal, R., and Dobhal, P.C. Hepatoprotective Activity in the Rat of Ursolic Acid Isolated from Eucalyptus Hybrid. <i>Phytotherapy Research</i> 6: 74-79, 1992.
Antihistaminic	Tsuruga, T., Chun, Y.-T., Ebizuka, Y., and Sankawa, U. 1991. Biologically Active Constituents of <i>Melaleuca leucadendron</i> : Inhibitors of Induced Histamine Release from Rat Mast Cells. <i>Chem. Pharm. Bull.</i> 39(12): 3276-3278, 1991.
Antihyperlipidemic	
Antiinflammatory 1/3 indomethacin	
Antiinflammatory IC24=500 mg/kg	
Antileishmanic ED50=20 uM	
Antileukemic IC50=2.5-17.8 ug/ml	
Antilymphomtic	Newall, C. A., Anderson, L. A. and Phillipson, J. D. 1996. <i>Herbal Medicine - A Guide for Health-care Professionals</i> . The Pharmaceutical Press, London. 296pp.
Antimalarial IC50=28-37 ug/ml	
Antimetastatic IC80=10 uM	
Antimutagenic IC57-80=80 mg/kg	
Antinephritic IC50=6-7.5 uM	
Antiobesity?	Internat. J. Oriental Med. 16: 4.
Antioxidant IC50=10 uM	
Antiperoxidant IC35=200 ug/ml	
Antiplasmodial IC50=28-37 ug/ml	
Antiproliferative IC50=15-20 uM	
Antistaphylococcic	
Antithromboxane IC50=50 uM	
Antitrypanosomic	
Antitumor	Cancer Research, 54: 701, 1994.
Antitumor (Breast) 0.5% diet	
Antitumor (Breast) IC50=15-20 uM	
Antitumor (Cervix)	Chiang, L. C., Chiang, W., Chang, M. Y., Ng, L. T., Lin, C. C. 2003. Antileukemic activity of selected natural products in Taiwan. <i>Am J Chin Med.</i> , 31(1):37-46.
Antitumor (Colon)	
Antitumor (Lung)	
Antitumor (Ovary)	Chiang, L. C., Chiang, W., Chang, M. Y., Ng, L. T., Lin, C. C. 2003. Antileukemic activity of selected natural products in Taiwan. <i>Am J Chin Med.</i>

Antitumor (Stomach) IC50=15-20 uM	
Antitumor (brain)	Chiang, L. C., Chiang, W., Chang, M. Y., Ng, L. T., Lin, C. C. 2003. Antileukemic activity of selected natural products in Taiwan. <i>Am J Chin Med</i> , 31(1):37-46.
Antitumor-Promoter	<i>Planta Medica</i> , 57: A56, 1991.
Antiulcer	Shukla, B., Visen, P.K.S., Patnaik, G.K., Tripathi, S.C., Srimal, R.C., Dayal, R., and Dobhal, P.C. Hepatoprotective Activity in the Rat of Ursolic Acid Isolated from Eucalyptus Hybrid. <i>Phytotherapy Research</i> 6: 74-79, 1992.
Antiviral IC85=18 ug/ml	
Aromatase-Inhibitor	
Beta-Blocker	
Beta-Glucuronidase-Inhibitor ~100 mg/kg	
CNS-Depressant	
COX-2-Inhibitor IC50=130 uM/	
Cancer-Preventive	Stitt, P. A. Why George Should Eat Broccoli. Dougherty Co, Milwaukee, WI, 1990, 399 pp.
Candidicide	
Cardioprotective	
Cardiotonic	
Choleretic 5-20 mg/kg or l	Shukla, B., Visen, P.K.S., Patnaik, G.K., Tripathi, S.C., Srimal, R.C., Dayal, R., and Dobhal, P.C. Hepatoprotective Activity in the Rat of Ursolic Acid Isolated from Eucalyptus Hybrid. <i>Phytotherapy Research</i> 6: 74-79, 1992.
Cyclooxygenase-Inhibitor	Ringbom, T., Seguar, L., Noreen, Y., Perera, P., Bohlin, L. 1998. Ursolic Acid from Plantago major, a Selective Inhibitor of Cyclooxygenase-2 Catalyzed Prostaglandin Biosynthesis. <i>J. Nat. Prod.</i> , 61(10): 1212-1215.
Cytotoxic 50 ppm	
Cytotoxic ED50=3.75 ug/ml	
Cytotoxic 7.2 uM	
Diuretic	
Elastase-Inhibitor IC50=~15 uM	
Hepatoprotective 1-100 ug/ml	
Hepatoprotective 10 mg/kg	
Hypoglycemic	Ivorra, M.D., Paya, M., and Villar, A. 1989. A Review of Natural Products and Plants as Potential Antidiabetic Drugs. <i>Journal of Ethnopharmacology</i> , 27: 243-275, 1989.
Hypotensive	
Immunomodulator	
Leucocytogenic	
Lipoxygenase-Inhibitor IC50=0.18 mM	
MMP-9-Inhibitor IC80=10 uM	
Ornithine-Decarboxylase-Inhibitor	
Pesticide	
Piscicide	
Potassium-Sparing 3 mg/rat	Iwu, M.M. 1993. <i>Handbook of African Medicinal Plants</i> . CRC Press, Boca Raton, FL 435 pp.
Protease-Inhibitor IC85=18 ug/ml	
Protisticide	<i>Chemical Express</i> , 7: 285, 1992.
Quinone-Reductase-Inducer 5 ug/ml	Lee, S. K., Song, Y., Mata-Greenwood, E., Kelloff, G.J., Steele, V. E., Pezzuto, J. M. 1999. Modulation of in vitro Biomarkers of the Carcinogenic Process by Chemopreventive Agents. <i>Anticancer Res.</i> , 19: 35-44.
Sodium-Sparing 3 mg/rat	Iwu, M.M. 1993. <i>Handbook of African Medicinal Plants</i> . CRC Press, Boca Raton, FL 435 pp.
TOPO-2-Inhibitor	
Trypanocide	
Vasopressor	

VINAMIDINE	Plant	--	--	Rizk, A.F.M., The Phytochemistry of the Flora of Qatar, Scientific and Applied Research Centre, University of Qatar, Kingprint, Richmond, UK, 1986.
VINAPHAMINE	Plant	--	--	CRC Handbook of Medicinal Herbs and/or CRC Handbook of Proximate Analyses
VINASPINE	Plant	--	--	CRC Handbook of Medicinal Herbs and/or CRC Handbook of Proximate Analyses
VINBLASTINE	Plant	--	--	*

Activities (10)

AntiHodgkin's	Martindale's 29th
AntiKaposi's 4 mg/week/man	Martindale's 29th
Antileukemic	
Antilymphomic	Martindale's 29th
Antimitotic	Martindale's 28th
Antitrypanosomal	
Antitumor	Merck 11th Edition
Immunosuppressant	Martindale's 28th

VINCALEUKOBLASTINE	Plant	--	--	CRC Handbook of Medicinal Herbs and/or CRC Handbook of Proximate Analyses
Activities (1)				
MDR-Inhibitor 100 UM	Critchfield, J. W., Welsh, C. J., Phang, J. M., Yeh, G. C. 1994. Modulation of Adriamycin Accumulation and Efflux by Flavonoids in HCT-15 Colon Cells. Activation of P-Glycoprotein as a Putative Mechanism. <i>Biochem Pharmacol</i> , 48(7): 1437-1445.			
VINCAMICINE	Plant	--	--	CRC Handbook of Medicinal Herbs and/or CRC Handbook of Proximate Analyses
VINCAMINE	Plant	--	--	*
Activities (7)				
Bradycardic				
Cerebrotonic 40-80 mg/man/day/orl				
Coronary-Dilator	Pizzorno, J.E. and Murray, M.T. 1985. <i>A Textbook of Natural Medicine</i> . John Bastyr College Publications, Seattle, Washington (Looseleaf).			
Hypotensive 5-100 mg/man/day	ANON. 1948-1976. <i>The Wealth of India raw materials</i> . Publications and Information Directorate, CSIR, New Delhi. 11 volumes.			
Respirastimulant				
Sedative 50-500 mg/man/day	ANON. 1948-1976. <i>The Wealth of India raw materials</i> . Publications and Information Directorate, CSIR, New Delhi. 11 volumes.			
Vasodilator	Merck 11th Edition			
VINCARODINE	Plant	--	--	CRC Handbook of Medicinal Herbs and/or CRC Handbook of Proximate Analyses
VINCATHICINE	Plant	--	--	CRC Handbook of Medicinal Herbs and/or CRC Handbook of Proximate Analyses
Activities (1)				
Antimitotic	Wagner & Wolff, eds. 1977. <i>New Natural Products</i> (RS164. I56. 176)			
VINCEINE	Plant	--	--	CRC Handbook of Medicinal Herbs and/or CRC Handbook of Proximate Analyses
Activities (2)				
Adrenalin-Pressor				
Hypotensive				
VINCOLIDINE	Plant	--	--	CRC Handbook of Medicinal Herbs and/or CRC Handbook of Proximate Analyses
VINCOLINE	Plant	--	--	CRC Handbook of Medicinal Herbs and/or CRC Handbook of Proximate Analyses
VINCRISTINE	Plant	--	--	*
Activities (8)				
Analgesic				Martindale's 29th
AntiKaposi's				Martindale's 29th
Antileukemic 25-150 ug/kg/week/ivn/man				Martindale's 29th
Antineuritic				Martindale's 29th
Antitumor				Merck 11th Edition
Immunosuppressant				Martindale's 28th
Neurotoxic				Martindale's 29th
Teratogenic				
VINDOLICINE	Plant	--	--	CRC Handbook of Medicinal Herbs and/or CRC Handbook of Proximate Analyses
VINDOLIDINE	Plant	--	--	CRC Handbook of Medicinal Herbs and/or CRC Handbook of Proximate Analyses
VINDOLINE	Plant	--	--	*
Activities (1)				
Hypoglycemic				
VINDOLININE	Plant	--	--	CRC Handbook of Medicinal Herbs and/or CRC Handbook of Proximate Analyses
Activities (2)				
Diuretic				
Hypoglycemic				
VENDOROSINE	Plant	--	--	CRC Handbook of Medicinal Herbs and/or CRC Handbook of Proximate Analyses
VINESESINE	Plant	--	--	CRC Handbook of Medicinal Herbs and/or CRC Handbook of Proximate Analyses
VINOSIDINE	Root	--	--	Rizk, A.F.M., <i>The Phytochemistry of the Flora of Qatar, Scientific and Applied Research Centre, University of Qatar, Kingprint, Richmond, UK</i> , 1986.

VINSEDECINE	Plant	--	--	CRC Handbook of Medicinal Herbs and/or CRC Handbook of Proximate Analyses
VIROSINE	Plant	--	--	CRC Handbook of Medicinal Herbs and/or CRC Handbook of Proximate Analyses
YOHIMBINE	Plant	--	--	CRC Handbook of Medicinal Herbs and/or CRC Handbook of Proximate Analyses
Activities (37)				
Adrenergic-Blocker				
Adrenolytic 2 mg/kg ivn rbt	Borchard, R. E., Barnes, C. D., and Eltherton, L. G. 1991. Drug Dosage in Laboratory Animals: A Handbook. (3rd Ed.) The Telford Press, Inc., P. O. Box 287, Caldwell NJ 07006.			
Adrenolytic 5 mg/kg ivn rat	Borchard, R. E., Barnes, C. D., and Eltherton, L. G. 1991. Drug Dosage in Laboratory Animals: A Handbook. (3rd Ed.) The Telford Press, Inc., P. O. Box 287, Caldwell NJ 07006.			
Adrenolytic 0.2 mg/kg ivn dog	Borchard, R. E., Barnes, C. D., and Eltherton, L. G. 1991. Drug Dosage in Laboratory Animals: A Handbook. (3rd Ed.) The Telford Press, Inc., P. O. Box 287, Caldwell NJ 07006.			
Anesthetic				
Antiacyetylcholinesterase				
Antianginal				
Antiatherosclerotic				
Antidepressant	Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp.			
Antidiuretic	Martindale's 28th			
Antidopaminergic				
Antidote (Barbiturate) 0.25 mg/kg ivn dog	Borchard, R. E., Barnes, C. D., and Eltherton, L. G. 1991. Drug Dosage in Laboratory Animals: A Handbook. (3rd Ed.) The Telford Press, Inc., P. O. Box 287, Caldwell NJ 07006.			
Antihypertensive				
Antiketaminic 0.25 mg/kg ivn cat	Borchard, R. E., Barnes, C. D., and Eltherton, L. G. 1991. Drug Dosage in Laboratory Animals: A Handbook. (3rd Ed.) The Telford Press, Inc., P. O. Box 287, Caldwell NJ 07006.			
Antiparaesthesia 6 mg/3xday/man/orl	Martindale's 28th			
Antiserotonin	Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp.			
Anxiogenic				
Aphrodisiac	Williamson, E. M. and Evans, F. J. Potter's New Cyclopaedia of Botanical Drugs and Preparations, Revised Ed., Saffron Walden, the C. W. Daniel Co., Ltd., Essex UK, 362 pp, 1988, reprint 1989.			
CNS-Depressant 8 mg/kg ivn rbt	Borchard, R. E., Barnes, C. D., and Eltherton, L. G. 1991. Drug Dosage in Laboratory Animals: A Handbook. (3rd Ed.) The Telford Press, Inc., P. O. Box 287, Caldwell NJ 07006.			
CNS-Depressant 5 mg/kg scu rat	Borchard, R. E., Barnes, C. D., and Eltherton, L. G. 1991. Drug Dosage in Laboratory Animals: A Handbook. (3rd Ed.) The Telford Press, Inc., P. O. Box 287, Caldwell NJ 07006.			
CNS-Depressant	Williamson, E. M. and Evans, F. J. Potter's New Cyclopaedia of Botanical Drugs and Preparations, Revised Ed., Saffron Walden, the C. W. Daniel Co., Ltd., Essex UK, 362 pp, 1988, reprint 1989.			
CNS-Stimulant				
Calcium-Antagonist 3 uM rat				
Cardiotonic	Leung, A. Y. and Foster, S. 1995. Encyclopedia of Common Natural Ingredients 2nd Ed. John Wiley & Sons, New York. 649 pp.			
Cardiovascular 1 mg/kg ivn rat	Borchard, R. E., Barnes, C. D., and Eltherton, L. G. 1991. Drug Dosage in Laboratory Animals: A Handbook. (3rd Ed.) The Telford Press, Inc., P. O. Box 287, Caldwell NJ 07006.			
Cholinergic				
Emetic	Leung, A. Y. and Foster, S. 1995. Encyclopedia of Common Natural Ingredients 2nd Ed. John Wiley & Sons, New York. 649 pp.			
Hypertensive 5 mg/man orl				
Hypothermic				
MAO-Inhibitor				
MDR-Inhibitor 10 uM	Bhat, U. G., et al. 1995. A Structure-Function Relationship Among Reserpine and Yohimbine Analogues in Their Ability to Increase Expression of MDR1 and P-Glycoprotein in a Human Colon Carcinoma Cell Line. Mol Pharmacol, 48(4): 682-689.			
Mydriatic	Merck 11th Edition			
Respirodepressant	Leung, A. Y. and Foster, S. 1995. Encyclopedia of Common Natural Ingredients 2nd Ed. John Wiley & Sons, New York. 649 pp.			
Respirostimulant	Leung, A. Y. and Foster, S. 1995. Encyclopedia of Common Natural Ingredients 2nd Ed. John Wiley & Sons, New York. 649 pp.			
Rhinorreic 20-30 mg/man				
Sialogogue 0.3 mg/kg ivn rat				
Tremorigenic				